

NTI DAY #7
(weather-closed school day)

6th grade
Brannock
Copes

PACKET SEVEN (Math)

General Directions:

Due to weather, Harrison County Schools are closed. In an effort to utilize this day on the school calendar, your child is assigned and should work on this "packet" of school work today. It will count as a grade for this subject. The work attached is specific to the subject listed above. Please contact your child's teacher of this subject at ~~234-7110~~ in the event you/your student have questions on this packet. Staff and teachers reported to HCMS today and are available should you have questions.

While this is DUE no later than the last school day before the 3rd nine-weeks ends, we *strongly encourage* students to turn it in to their teacher as soon as it's complete (soon after the NTI day) to avoid it being lost, eaten by the family pet, burned to keep warm, etc ☺

234-7123

Lesson 1.7 Greatest Common Factor

A **factor** is a divisor of a number. (For example, 3 and 4 are both factors of 12.) A **common factor** is a divisor that is shared by two or more numbers (1, 2, 4, and 8). The **greatest common factor** is the largest common factor shared by the numbers (8).

To find the greatest common factor of 32 and 40, list all of the factors of each.

$$32 \begin{cases} 1 \times 32 \\ 2 \times 16 \\ 4 \times 8 \end{cases} 1, 2, 4, 8, 16, \text{ and } 32$$

$$40 \begin{cases} 1 \times 40 \\ 2 \times 20 \\ 4 \times 10 \\ 5 \times 8 \end{cases} 1, 2, 4, 5, 8, 10, 20, \text{ and } 40$$

The greatest common factor is 8.

List the factors of each number below. Then, list the common factors and the greatest common factor.

	Factors	Common Factors	Greatest Common Factor
1.	8 _____ 12 _____	_____	_____
2.	6 _____ 18 _____	_____	_____
3.	24 _____ 15 _____	_____	_____
4.	4 _____ 6 _____	_____	_____
5.	5 _____ 12 _____	_____	_____
6.	16 _____ 12 _____	_____	_____

Name : _____

Score : _____

Teacher : _____

Date : _____

Example Multiplying Fractions with Cross Canceling

Example

$$1) \quad \frac{2}{4} \times \frac{5}{7} = \frac{\overset{1}{\cancel{2}}}{\underset{2}{\cancel{4}}} \times \frac{5}{7} = \left(\frac{5}{14} \right)$$

$$2) \quad \frac{6}{8} \times \frac{2}{9} =$$

$$3) \quad \frac{5}{10} \times \frac{1}{5} =$$

$$4) \quad \frac{3}{4} \times \frac{2}{7} =$$

$$5) \quad \frac{2}{3} \times \frac{3}{5} =$$

$$6) \quad \frac{4}{5} \times \frac{2}{3} =$$

$$7) \quad \frac{1}{3} \times \frac{2}{8} =$$

$$8) \quad \frac{1}{2} \times \frac{2}{3} =$$

$$9) \quad \frac{3}{4} \times \frac{7}{8} =$$

$$10) \quad \frac{8}{9} \times \frac{7}{8} =$$



Name : _____

Score : _____

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Converting Improper Fractions to Mixed Numbers

- 1) $\frac{59}{9} = \frac{54}{9} + \frac{5}{9} = 6\frac{5}{9}$ 2) $\frac{9}{2} = \underline{\hspace{2cm}}$ 3) $\frac{31}{4} = \underline{\hspace{2cm}}$
- 4) $\frac{40}{9} = \underline{\hspace{2cm}}$ 5) $\frac{14}{3} = \underline{\hspace{2cm}}$ 6) $\frac{11}{3} = \underline{\hspace{2cm}}$
- 7) $\frac{8}{3} = \underline{\hspace{2cm}}$ 8) $\frac{33}{5} = \underline{\hspace{2cm}}$ 9) $\frac{44}{10} = \underline{\hspace{2cm}}$
- 10) $\frac{18}{4} = \underline{\hspace{2cm}}$ 11) $\frac{21}{4} = \underline{\hspace{2cm}}$ 12) $\frac{33}{7} = \underline{\hspace{2cm}}$
- 13) $\frac{41}{10} = \underline{\hspace{2cm}}$ 14) $\frac{41}{10} = \underline{\hspace{2cm}}$ 15) $\frac{29}{6} = \underline{\hspace{2cm}}$

Converting Mixed Numbers to Improper Fractions

- 1) $6\frac{5}{6} = \frac{36+5}{6} = \frac{41}{6}$ 2) $4\frac{5}{8} = \underline{\hspace{2cm}}$ 3) $7\frac{1}{2} = \underline{\hspace{2cm}}$
- 4) $4\frac{1}{2} = \underline{\hspace{2cm}}$ 5) $6\frac{3}{8} = \underline{\hspace{2cm}}$ 6) $5\frac{2}{5} = \underline{\hspace{2cm}}$
- 7) $6\frac{3}{4} = \underline{\hspace{2cm}}$ 8) $6\frac{2}{9} = \underline{\hspace{2cm}}$ 9) $4\frac{1}{2} = \underline{\hspace{2cm}}$
- 10) $6\frac{1}{4} = \underline{\hspace{2cm}}$ 11) $4\frac{3}{4} = \underline{\hspace{2cm}}$ 12) $3\frac{2}{7} = \underline{\hspace{2cm}}$
- 13) $7\frac{1}{7} = \underline{\hspace{2cm}}$ 14) $6\frac{3}{5} = \underline{\hspace{2cm}}$ 15) $4\frac{3}{10} = \underline{\hspace{2cm}}$



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Dividing Fractions

Example!

$$1) \quad \frac{1}{5} \div \frac{2}{3} = \frac{1}{5} \times \frac{3}{2} = \left(\frac{3}{10} \right)$$

$$2) \quad \frac{3}{10} \div \frac{1}{2} =$$

$$3) \quad \frac{3}{5} \div \frac{7}{10} =$$

$$4) \quad \frac{5}{10} \div \frac{2}{5} =$$

$$5) \quad \frac{1}{4} \div \frac{1}{2} =$$

$$6) \quad \frac{2}{5} \div \frac{8}{10} =$$

$$7) \quad \frac{6}{10} \div \frac{3}{5} =$$

$$8) \quad \frac{3}{4} \div \frac{1}{10} =$$

$$9) \quad \frac{1}{3} \div \frac{1}{10} =$$

$$10) \quad \frac{1}{2} \div \frac{1}{5} =$$



Math Without Computing

3×0.25

$3 \div 0.25$

$0.25 \div 3$

20×0.5

$20 \div 0.5$

$0.5 \div 20$

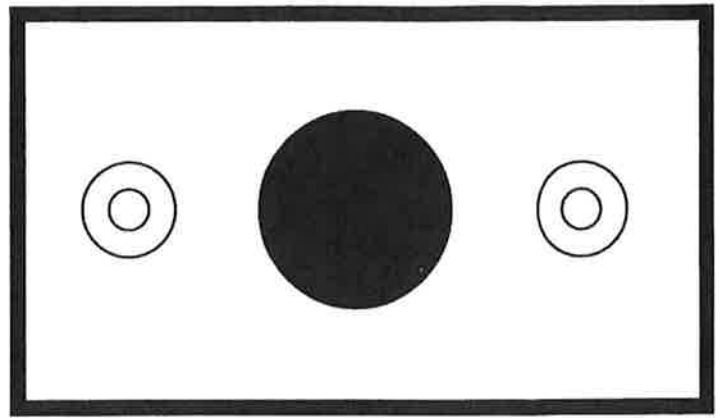
Each of these problems can be solved by doing one of the computations in the box above. Next to each problem (write the computation needed to solve it.)

- 1 A running track is 0.25 mi long. How many laps around the track are necessary to run 3 mi? $3 \div 0.25$
- 2 Osgood bought 20 candy bars at \$0.50 each. How much did he pay for the candy bars?
- 3 Bubbles Mirth and two of her friends bought a bottle containing 0.25 L of root beer. If they divide it equally, how much will each person get?
- 4 Each super chocolate kiss weighs 0.5 oz. How many kisses can be made from 20 oz of chocolate?
- 5 Paper Plus is having a sale on school supplies. The discount is 0.25 of the regular price. How much would you save on a \$3 notebook?
- 6 A pack of construction paper is 0.5 cm thick. If there are 20 sheets of paper in the pack, how thick is each sheet?
- 7 Ms. Burger bought a 3-pound package of ground beef. She divided it into 0.25-pound patties. How many patties did she make?
- 8 Three diamonds together weigh 0.25 carat. What is the average weight of the diamonds?
- 9 It took Rolex 20 days to write his dinosaur report. He wrote half a page each day. How long was the report? 20×0.5
- 10 Twenty pounds of cashews are packed into cans. Each can holds half a pound. How many cans are filled?
- 11 What is the cost of 3 pounds of potatoes at 25¢ per pound?
- 12 A scale model of a sailboat is 20 cm long. Each centimeter on the model is 0.5 m on the actual boat. How long is the actual boat?
- 13 An antelope ran 3 miles in 0.25 hour. What was its average speed in miles per hour?
- 14 A string of outdoor lights is supported by 21 equally-spaced posts. If the distance from the first post to the last post is 0.5 km, how far apart are the posts?
- 15 A window is made using 2 panes of glass separated by an insulating air space. The glass is 0.25 cm thick, and the separation between panes is also 0.25 cm. How thick is the window?
- 16 A math workbook is 0.5 in. thick. How many of these books will fit on a shelf that is 20 in. long?

(Show your work on the back or on a separate sheet of notebook paper!)
What Is the Title?

TO DECODE THE TITLE
 OF THIS PICTURE:

Do each exercise and find your answer in the appropriate answer column. Notice the symbol next to the answer. Each time this symbol appears in the code, write the letter of the exercise above it.



CODED TITLE:

z z ¢ ¢ \$ \$ \ \ # # = = ? ? * * [] ¢ ¢ :: () > < ¢ ¢ * * // = = @ @ & & [] > < x x // //

!! = = - - - - = = @ @ & &) (x x < > + + = = :: :: = = || " " // z z][- - % % ¢ ¢ z z

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Answers for W – N:	
[]	67.66
& &	0.95
* *	32.25
x x	36.63
) (0.5385
" "	2.508
	4.75
< >	0.98
::	2.8
% %	22.777
\ \	4.66
@ @	13.6
? ?	63.86
][37.53
\$ \$	0.5175
()	24.677

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| (W) $7.2 + 16.6 + 8.45$ | (H) $32.067 - 9.29$ |
| (U) 4.18×0.6 | (P) 57.5×0.009 |
| (A) $0.33 + 33 + 3.3$ | (E) $90 - 26.14$ |
| (F) $7 \overline{)19.6}$ | (G) $4 \overline{)3.8}$ |
| (C) $38 \div 8$ | (N) $340 \div 25$ |
| (M) 0.83×0.12 | (D) $0.7 \times 0.6 \times 0.5$ |
| (T) $0.6 \overline{)3.24}$ | (V) $0.09 \overline{)1.863}$ |
| (O) $\frac{16.7}{0.5}$ | (B) $\frac{2.6}{0.16}$ |
| (I) $(2.5 + 0.187) \times 10$ | (L) $(100 - 19.2) \div 100$ |
| (S) The paper feed on a copying machine has room for a stack of paper 4.0 cm high. If 10 sheets of paper are 0.08 cm thick, how many sheets will fit? (HINT: How thick is 1 sheet?) | |

Answers for M – S:	
# #	20.7
][12.7
!!	0.0996
< >	16.33
- -	500
¢ ¢	33.4
\ \	320
= =	26.87
z z	5.4
()	21.5
@ @	5.9
[]	0.0876
> <	16.25
+ +	0.21
) (34.7
//	0.808